Claims

1. Electronic control device with a parallel databus (5) and a plurality of assemblies (8) connected to the databus (5) that respectively comprise a processor (11), a memory device (12) and a DMA controller (10) and that are

5   connected to the databus (5) with a bus controller (9), whereby data are transmitted between a transmitter assembly and a receiver assembly with messages, whereby the bus controller (9) of the transmitter assembly is fashioned such that, in response to a request message of the receiver assembly, it programs the DMA controller to read out data stored in the memory device (12) of the transmitter

10   assembly and to send them to the transmitter assembly, without making use of the processor (11) of the transmitter assembly.

2. Electronic control device according to claim 1, characterized in that the DMA controller (10) is integrated into the bus controller (9) of the transmitter assembly.

15   3. Electronic control device according to claim 1 or 2, whereby the databus (5) is a data bus compatible with the MULTIBUS II.

4. Electronic control device according to one of the claims 1 through 3, characterized in that the receiver assembly comprises a fail-safe counter for monitoring the message transfer that is restarted upon reception of a data message.

20   5. Method for the operation of an electronic device, whereby the electronic control device comprises a parallel databus (5) and a plurality of assemblies (2) connected to the databus that are respectively provided with a processor (11) and a memory device (12) and are connected to the databus (5) with a bus controller (9), whereby data are transmitted between a transmitter assembly and a receiver assembly

25   with messages, and the receiver assembly initiates a data transfer by sending a request message to the transmitter module, and the bus controller (9) of the transmitter assembly, without making use of the processor of the transmitter assembly, transmits data stored in the memory device (12) of the transmitter assembly to the receiver assembly in response to the request message.

30   6. Method according to claim 5, whereby a control device according to one of the claims 1 through 5 is employed.

7. Method according to claim 5 or 6, whereby, following the reception of a request message, the bus controller (9) of the transmitter assembly sends a plurality of data messages respectively containing a data packet to the receiver assembly.

8. Method according to one of the claims 5 through 7, whereby

5   information for programming a DMA controller (10) arranged at the transmitter assembly for reading and sending the data stored in the memory device (12) of the transmitter assembly are transmitted with the request message .

9. Method according to one of the claims 5 through 8, whereby a DMA controller (10) arranged on the transmitter assembly is programmed by the bus

10   controller (9) on the basis of data communicated with the request message, being program to read and transmit the data stored in the memory device (12) of the transmitter assembly.

10. Method according to one of the claims 5 through 9, whereby a DMA controller (10) arranged on the receiver assembly is programmed for the reception of

15   the data with the transmission of the request message.

11. Method according to one of the claims 5 through 10, whereby the data are transmitted with a plurality of messages that respectively contain a data packet.

12. Method according to one of the claims 5 through 11, whereby the transmitter assembly comprises a buffer wherein an entry is provided for each

20   assembly present in the control device, so that the parameters characterizing the data transfer are written into the respectively entry and stored during a data transfer and are erased after the conclusion of the data transfer.

13. Method according to claim 12, whereby, upon reception of a request message, the bus controller of the transmitter assembly checks whether the entry of

25   the buffer allocated to the assembly sending the request message is already written with data characterizing a data transfer in order to prevent two data transfers from being simultaneously initiated with the same receiver assembly.

14. Control device for editing print data for a high-performance printer, comprising the features of one of the claims 1 through 5, whereby the transmitter

30   assembly forms an I/O module (2) and a plurality of receiver modules that respectively form a raster module (3) are provided.